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Jonathan.Koplos@cadmusgroup.com[Jonathan.Koplos@cadmusgroup.com]
From: JAMES D WALKER
Sent: Fri 3/17/2017 7:11:53 PM
Subject: Summary of conference call with Excelsior Mining Co. on March 9, 2017

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Hi Kate,

The step-rate testing requirement for confirmation of the fracture gradient proposed for setting the maximum allowable injection pressure was the main topic discussed during the call. Excelsior claims that the testing performed in six test wells should be sufficient and accepted by EPA as valid without confirmation by step-rate testing in at least one well in each mine block. An Excelsior consultant presented the argument for accepting the results of the fracture testing without confirmation by step-rate testing. The “intercept” testing method used by Excelsior may be acceptable for testing in a long open-hole interval such as planned for most wells in the Gunnison project, but it is considered unconventional and inferior to step-rate testing in Class III injection wells. We responded to Excelsior’s request to waive step-rate test requirement by stating that EPA would consider documentation providing the basis for Excelsior’s claims that the intercept testing method is superior to conventional SRTs. Excelsior has proposed that a fracture pressure gradient of 0.75 psi/foot be applied for the maximum allowable injection pressure, which is below the minimum and average gradients determined by the intercept testing method.

Excelsior presented a new “closure strategy” in a Power Point presentation with a provision for retaining fewer “closure verification” wells in the post-rinsing monitoring period. It appeared to be a reasonable approach to monitoring for rebound during the five-year post-closure period, but the plan will require more details and further review before acceptance by EPA. Excelsior presented a complex “decision tree” for the closure strategy, which will also require further review by EPA.

The “example” plugging and abandonment 7520-14 EPA forms were not signed by an Excelsior official. Excelsior objects to signing the example forms because the information in the forms is tentative and subject to major revisions after the wells are drilled and before abandonment. EPA requires the forms to be signed by a company representative regardless of the status of the forms.

Excelsior stated that the upper 200 feet of the sulfide zone will be added to the proposed aquifer exemption interval, based on the possible fault connections with the oxide zone. That change may eliminate the need for monitoring wells installed at the oxide-sulfide transition zone.

Excelsior stated that water quality alert levels will be established for the outer ring of intermediate monitoring wells, which will indicate when to turn on hydraulic control (HC) wells or initiate pumpback. Excelsior also stated that “per ADEQ request”, ambient monitoring of specific conductance will be proposed and contingency language for adjusting operations, installing HC wells, and adjusting of HC pumping will be proposed. EPA will review those proposals for consistency with UIC permit requirements.

Excelsior stated that submittal of the written responses to EPA comments on the previous Excelsior response to EPA comments is targeted for 'the week of March 13'.

The next conference call is scheduled for 9 am PDT, March 23.

Nancy: Please add to or revise my summary if I have omitted an important point or mischaracterized the discussion.

Best regards.

Jim